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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/107,618	06/30/1998	STEVEN M BLUMENAU	E0295/7066RF	8313

7590

12/30/2004

WOLF GREENFIELD & SACKS, P.C.  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2211

EXAMINER
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DINH, DUNG C

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/107,618

Applicant(s)

BLUMENAU ET AL.

Examiner

Dung Dinh

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-27 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-27 and 29-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/23/04</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2152

**DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/10/2004 has been entered.

***Response to Arguments***

Applicant's arguments filed 11/10/04 have been fully considered but they are deemed moot in view of the new ground of rejection below.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

Art Unit: 2152

Claims 1-27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ericson US patent 6,061,753. As and further in view of Yu US patent 4,919,545 and Abadi et al. US patent 5,315,657.

As per claim 1, Ericson teaches a data management method for managing access to a storage system between two devices coupled to the storage system through a network [col.1 "SCSI Fibre Channel bus or Ethernet based local area network"], the method comprising:

Receiving over the network at the storage system a request from one of the device [initiator - see col.3 lines 56-60];

Selectively servicing, at the storage system, the request responsive to configuration data indicating that the device [initiator] is authorized to access the portion of data [col.4 lines 4-25].

Ericson does not teach authenticating the request at the storage system to authenticate the device issuing the request. Yu teaches a security method for authorizing access by a process in requesting node to a resource node in the network comprising encrypting an access key (capability + signature 44) using encrypting information (encryption key) associated with the requesting node, sending the encrypted access key to the resource

Art Unit: 2152

node, decrypting the access key at the resource node to verify the request [see abstract, col. 6 line 50 to col. 7 line 44]. It would have been obvious for one of ordinary skill in the art to combine the teaching of Yu with the storage system of Ericson because it would have enabled secure access to the storage system over a network.

Yu does not teach the requesting node (e.g the claimed device) provides encryption information to the resource node (e.g. the claimed storage device) and then encrypts the signature 44 (the claimed access key) using the encryption information. Yu teaches the resource node maintains a unique encryption key for each requesting node [col.7 lines 12-15, lines 50-56]. Yu does not specifically disclose how the resource node comes to possession of these unique keys. However, the method of providing encryption information to a destination node so that the destination node can encrypt data specifically targeted for the providing node is well known in the art. Abadi discloses using RSA cryptography to authenticate the identity of a requesting node by providing a public key to the destination and the destination returning to the requesting node data encrypted using that public key that only be decrypted by the requesting node's private key. [see Abadi col.4 lines 50-68, col.5 lines 1 to col.6 line 8].

Hence, it would have been obvious for one of ordinary skill in the

Art Unit: 2152

art to modify Ericsson+Yu to use RSA cryptography so that a requesting device provides its public key to the storage system and the storage system provides a unique access key (Yu's capability + signature 44) encrypted by the public key back to the requesting device for used to access to the storage system at a later time because it would have enabled not only secure access to the storage system but also enabled the storage system to authenticate the identity of the requesting node.

As per claim 2, Ericsson teaches the storage system stores a plurality of volumes of data where configuration data stored in the storage system in a configuration table [look-up table] having identifier and information indicating which volumes are available to a device [col.4 lines 34-54].

As per claim 3, it is apparent that the request would be forwarded to the storage system over the network.

As per claim 4, Ericsson teaches using Fibre Channel [col.1 line 15, col.6 line 5]. It is apparent that a system with Fibre Channel would use Fibre Channel protocol.

As per claim 6, Yu teaches the access key includes access information generated at the resource node independent of the identifier of the requesting device [col.6 lines 50 to col.7 line 11]. Yu and Abadi teach providing the encryption information prior to receiving of the request. (It is apparent

Art Unit: 2152

from Abadi's col.5-6 that the key exchange occurred prior to any actual data transfer and Yu clearly teaches providing the access key to the node before the request for access occurred [see Yu col.7 lines 24-41].

As per claim 7, Yu clearly teaches encrypting using key associated with the device [col.7 lines 14-15].

As per claim 8, it is apparent that the system as modified would decrypt the access key using a decryption key provided initially by the device (the public key).

As per claims 15-18, 21-22, 26-27, 29 they are rejected under similar rationale as for claims 1-8 above.

As per claims 11 and 30, Ericson teaches plural disk drives [RAID col.4 lines 5-15].

As per claims 13 and 19-20, 24-25, Ericson teaches row with bitmap records corresponding to teach device authorized to access each of the corresponding ports [col.4 lines 40-53].

As per claims 14 and 23, Ericson teaches precluding service request responsive to configuration data [col.4 lines 47-50].

As per claim 9, 10, 31, 32, Ericson does not specifically disclose that the device is a host processor or file server. The type of device making the request would clearly have been a matter of design choice because it does not change the functionality of the storage system access control method taught by Ericson.

Art Unit: 2152

Furthermore, Ericson teaches using the system may be used over a local area network [col.1 lines 15-16]. It is apparent in such a usage to have host processor or file server requesting access to the storage system.

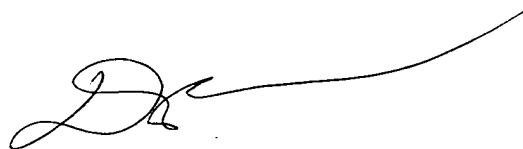
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (571) 272-3943. The examiner can normally be reached on Monday-Thursday from 7:00 AM - 4:30 PM. The examiner can also be reached on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (571) 272-3949.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dung Dinh  
Primary Examiner  
December 23, 2004